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*Student housing: a new asset
class in Sub-Saharan Africa*



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Demand for new purpose-built student accommodation across Sub-Saharan Africa is set to exceed 500,000 beds over the next five years. Given public sector budget constraints, the private sector will have an important role to play in meeting this demand.

Executive summary

The demand for purpose-built student accommodation in Sub-Saharan Africa is growing rapidly, and is starting to attract interest from investors, private operators and developers from around the world. Within this environment, student housing in certain Sub-Saharan African regions is set to emerge as an attractive alternative investment category, just as it has in developed markets such as the UK and US.

Macro context

Sub-Saharan Africa's economic prospects are improving.

A number of macro trends are creating an urgent need for improved real estate infrastructure, including student housing.

Occupational demand and supply features

Strong demand conditions. There has been an unprecedented increase in the number of student enrolments across Sub-Saharan Africa (SSA). In the 2000-2014 period, the SSA tertiary gross enrolment ratio rose from 4.3% to 8.2%. This trend, when coupled with a growing tertiary-aged population, would suggest that demand for new purpose-built student housing should grow rapidly over the medium term. We estimate that well over 500,000 new beds will be demanded over the next five years.

SSA itself is a key sourcing region for demand. The SSA higher education student outbound mobility ratio has decreased from 6.0% in 2000 to 4.0% in 2015, which indicates that SSA universities are becoming better able to capture the growing demand for tertiary education.

Structural undersupply of adequate student housing.

Purpose-built student accommodation has not been supplied at a fast enough pace to keep up with mounting demand across SSA. If this trend continues, we predict there will be a chronic shortage of affordable purpose-built student housing facilities.

A substantial funding gap is emerging. We estimate that if governments maintain their current expenditure patterns (which is likely given their constrained education budgets), a substantial student housing funding gap will emerge. It is within this setting that the private sector could play a pivotal role in addressing the increasing needs of the market.

Investment and development landscape

Public Private Partnerships (PPPs) are new but are growing in popularity. There have been three prominent examples of student housing PPP developments in SSA over the past three years and a substantial student housing PPP feasibility study is currently being undertaken by the Kenyan Government.

Good yield potential (in excess of 10.0%). Due to a lack of data, it is not possible to make accurate generalisations about yields in the SSA student housing market as a whole, or on a regional basis for that matter. However, South African developers and investors have reported strong net initial yield potential in student housing.

Fragmented development landscape. The operations of most large SSA student housing providers are located in South Africa, where the market is quite fragmented with most providers providing less than 10,000 beds. Three of the four largest SSA providers, however, have operations across a number of countries. The two largest providers together provide more beds than all the other top 15 providers combined, which shows that economies of scale are being utilised at the top end of the market.

Student housing as an asset class in Sub-Saharan Africa: opportunities and challenges

The SSA student housing market is at a very early stage of its development. It is considered to be around 15 to 25 years behind mature markets in terms of providing purpose-built, high-quality student housing. The SSA market has consequently attracted interest from international investors seeking to take advantage of the benefits of early entry, along with the other more general appealing attributes of student housing, which include:

- relatively stable income and solid rental growth above inflation
- resilient performance in downturns
- high occupation rates
- constant supply and demand imbalance
- low-risk profile

Developers and investors operating in the SSA market have to weigh up these benefits against challenges which include:

- short development delivery windows
- short leasing cycles
- high turnover rates
- intensive property management services

In addition, SSA poses a number of area-specific challenges, including:

- security concerns
- infrastructure shortages
- affordability constraints
- limited transparency
- lack of international students

To overcome these challenges, developers are increasingly recognising the importance of partnering with experienced operators that fully understand the asset class and the local market conditions.



Introduction

Over the past two decades, student housing (which for the purposes of this report refers to purpose-built housing that caters to tertiary students) has experienced rapid growth on a global scale.

This growth has been driven predominantly by increased student enrolments across the globe, which has in turn been primarily driven by demographic trends. Universities have been financially ill-equipped to deal with the attendant increased demand for purpose-built student housing. To exacerbate the problem, universities have also had to deal with their existing student housing stock becoming outdated and in need of repair or redevelopment. In the circumstances, the private sector has become increasingly involved in developing purpose-built accommodation aligned with student needs.

As a direct consequence of this rapid growth and other macroeconomic factors, the student housing market finds itself at different stages of maturity in different regions around the world. The market has become mature in the US and the UK, but remains relatively immature in SSA.

Nonetheless, the demand for purpose-built student accommodation in SSA is growing rapidly, and is starting to attract interest from investors, private operators and developers from around the world. Within this environment, student housing in certain SSA regions is set to emerge as an attractive alternative investment category, just as it has in developed markets such as the UK and the US.

This report provides a case for the emergence of student housing as a new alternative asset class in SSA. To this end, it identifies macro trends affecting the industry. It explores the drivers of occupational demand and supply of purpose-built student housing, and the funding gap that these market forces could create. It also discusses the challenges and opportunities facing the asset class and the current investment and development climate.

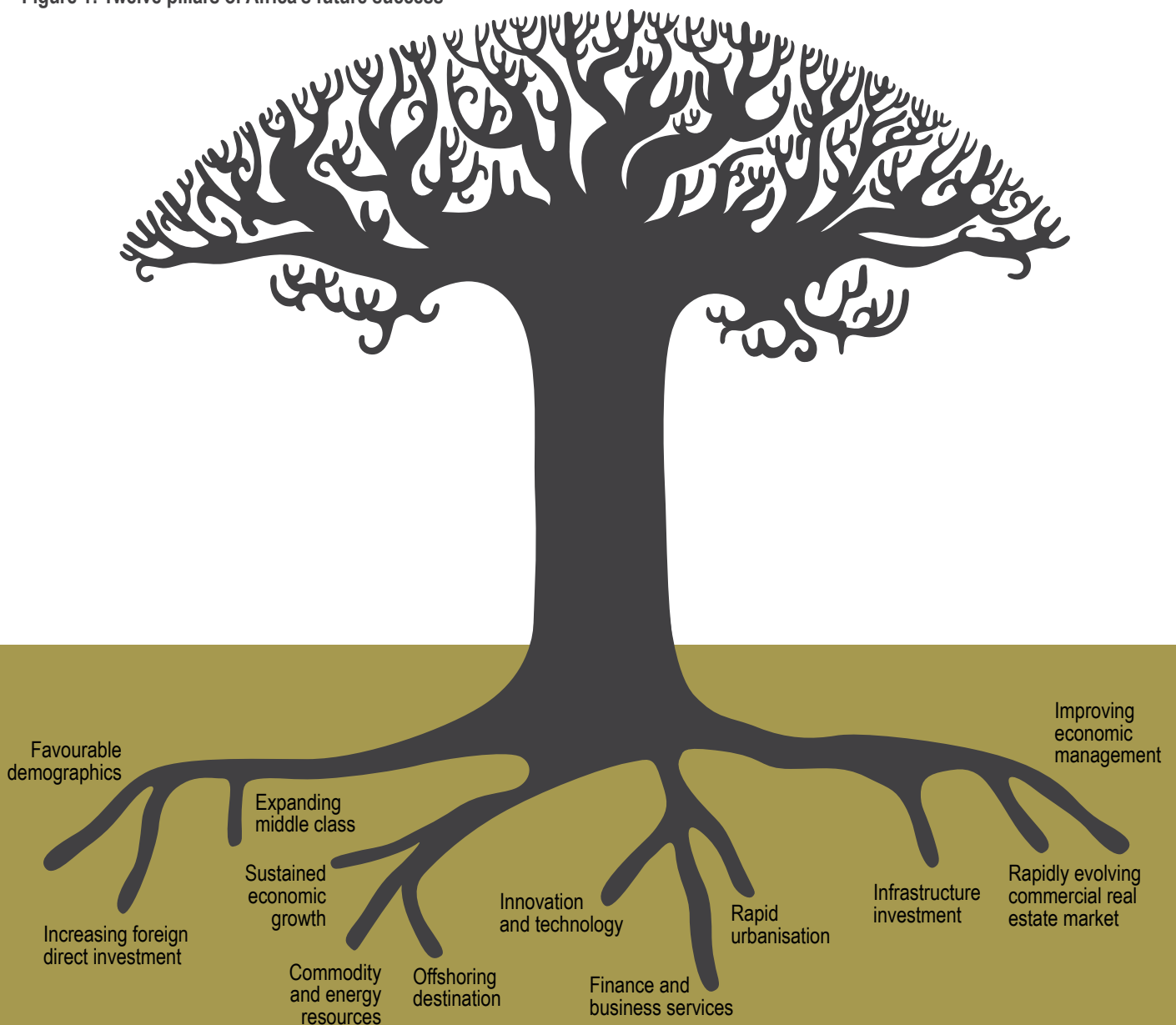


Macro context

SSA is experiencing strong and sustainable economic growth, favourable demographics, rapid urbanisation, increased foreign direct investment and an expanding urban middle class with a strong propensity to spend. At the same time, economies are becoming more active in harnessing their natural resources while growing other sectors including manufacturing, technology and telecoms, financial and business services, retail and hospitality.

These macro trends are projected to create considerable demand for improved real estate infrastructure across the continent. Student housing will form a vital component of this much needed infrastructure.

Figure 1: Twelve pillars of Africa's future success



Occupational demand and supply features

Higher education trends directly influence the demand for and supply of purpose-built student housing. It is therefore worthwhile to explore how these trends are affecting the market for student housing in SSA.

African higher education trends

Over the past decade, higher education enrolment in Africa has more than doubled, increasing from 2.3 million to 5.2 million students. This trend is set to continue, with tertiary education enrolments across the continent increasing at an annual rate of 9.0% (compared to 5.0% elsewhere in the world).¹ Notwithstanding this rapid growth (Figure 2), in 2014 the tertiary gross enrolment ratio in the SSA region (8.2%) was by far the lowest in the world when compared to East Asia and the Pacific (39.0%), South America (53.0%), and North America and Western Europe (76.0%).

The tertiary gross enrolment ratio^a is heavily influenced by population growth (Africa's population is set to double to 2.4 billion by 2050) along with secondary education completion rates.² Secondary education completion rates are in turn driven by primary and secondary school gross enrolment ratios, which are presented in Figure 3.

The SSA secondary school gross enrolment ratio has been steadily increasing, up from 26.1% in 2000 to 42.8% in 2014. Startlingly, this ratio drops from 34.6% to 8.2% among the tertiary-aged student population. It is therefore clear that SSA is currently not at all equipped to absorb the growing portion of the tertiary-aged student population that has completed secondary schooling.

These ratios emphasise the importance of improving higher education infrastructure across the continent, especially when one considers that a one-year increase in the average tertiary education level would raise the Gross Domestic Product (GDP) growth rate in Africa by 0.39%, and could eventually yield up to a 12.0% increase in GDP.³

Figure 2: Tertiary gross enrolment ratios by region

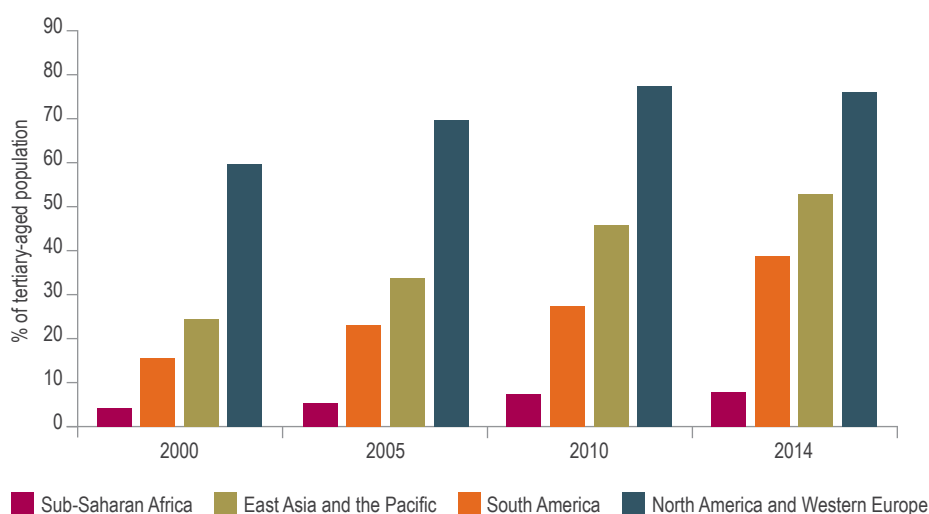
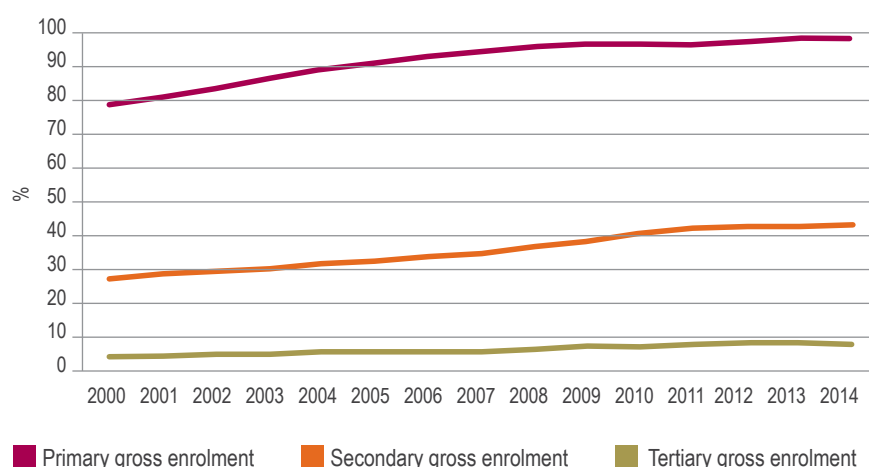


Figure 3: Primary, secondary and tertiary gross enrolment ratios



As it stands, a tertiary gross enrolment ratio of 8.2% is simply not sufficient to accelerate long-term GDP growth across the continent. Consequently, this issue is receiving renewed attention from African policy-makers, who are asking themselves what the funding implications of an increased gross enrolment ratio will be. In the following section, a hypothetical scenario examines what will happen to the demand for new purpose-built student accommodation should the SSA tertiary gross enrolment ratio rise from 8.2% to 10.8% over the next five years. We also consider the funding implications of such an increase.

¹ International Migration (2013): International Student Mobility and Tertiary Education Capacity in Africa

² Ibid

³ UNESCO (2015): Higher Education Report

^a The tertiary gross enrolment ratio is a statistical measure that describes total enrolment within an area, at a specific level of education, expressed as a percentage of the population eligible for that level of education

Demand and funding implications of an increase in the SSA gross enrolment ratio

If the SSA tertiary gross enrolment ratio were to grow to 10.8% by 2020, we estimate that well over 500,000 new purpose-built student beds will be demanded by additional students entering the market.

Our calculations and assumptions are set out below and highlighted in Table 1:

- The tertiary-aged population of SSA will grow at its historic average annualised growth rate over the next five years, which means that the number of tertiary-aged young adults (aged 18-25) in SSA will increase to just under 100 million by 2020.
- The gross enrolment ratio will increase at its historic average annualised growth rate over the next five years. This is a conservative estimate, given the major backlog SSA is experiencing relative to other areas of the world. If this growth rate is used, the SSA gross enrolment ratio will rise to 10.8% by 2020.
- We assume that out of all the newly enrolled student population, only 15.0% will prefer and be able to afford purpose-built student accommodation (PBSA). This is a very conservative estimate given that, in developed markets such as the UK, 41.0% of students stay in purpose-built student accommodation.⁴ Unlike developed markets, the option of staying at home while attending university is restricted in SSA given higher poverty rates, security concerns and larger rural populations. This ratio could therefore be well above 50.0% in SSA.⁵ This assertion is supported by the fact that in South Africa only 19.0% of the tertiary-enrolled student population that applied for positions in purpose-built student accommodation could be accommodated in 2011.⁶
- Based on these assumptions, well over 500,000 new beds will be required over the next five years to accommodate the new students who will be entering the market due to the growing tertiary gross enrolment ratio.

Table 1: Purpose-built student bed demand model

	2015a	2020f	Growth rate (annualised) / totals
Tertiary-aged population	84.48 million	98.90 million	2.72%
Gross enrolment ratio	8.61%	10.8%	4.62%
Number of additional students enrolled	329,215	741,926	3.56 million over 5 years
Number of students preferring PBSA	15.0%	15.0%	Constant over 5 years
Number of new beds required over 5 years	49,328	111,289	533,348

⁴ Eurostudent (2015): *Social and Economic Conditions of Student Life in Europe*

⁵ Avior Research (2014): *SA Listed Property*

⁶ Department of Higher Education and Training (2011): *Review of the Provision of Student Housing at South African Universities*

We plot the total number of new beds demanded over the next five years based on a variety of scenarios in Table 2. If the 15-year historic annualised SSA gross enrolment ratio growth rate of 4.62% is assumed to be the growth rate over the next five years, and it is assumed that the tertiary-enrolled student demand ratio (among the estimated new student body) is 15.0%, a total of 533,348 new beds will be required over the next five years. If we assume that demand will be 24.0%, the number of new beds required jumps to 850,000. We see no compelling reason why the ratio should fall below 15.0%. In fact, for these reasons, this ratio could quite possibly vastly exceed the upper limit of 24.0% (Table 2).

Table 2: Sensitivity of projected gross enrolment rate growth and percentage of student population affordability and preference

Annualised gross enrolment ratio growth rate over the next five years								
% Req. PBA	3.00%	3.50%	4.00%	4.50%	4.62%	5.00%	5.50%	6.00%
6%	156,084	173,281	190,898	208,943	213,339	227,426	246,354	265,736
9%	234,126	259,921	286,347	313,415	320,009	341,139	369,531	398,604
12%	312,168	346,562	381,796	417,887	426,678	454,852	492,708	531,471
15%	390,210	433,202	477,245	522,359	533,348	568,565	615,885	664,339
18%	468,253	519,842	572,693	626,830	640,017	682,278	739,062	797,207
21%	546,295	606,483	668,142	731,302	746,687	795,991	862,239	930,075
24%	624,337	693,123	763,591	835,774	853,356	909,704	985,416	1,062,943

In Table 3, we plot the funding required to construct the new beds that we estimate will be demanded over the next five years at different construction cost levels. If we assume that it will cost on average \$6,800 to construct a new purpose-built student bed, it will cost just over \$3.6 billion to fund the construction of the 533,348 new beds that will be demanded in SSA over the next five years. This construction cost estimate is based on the average cost per square metre of constructing a low-rise apartment block across a number of major cities in Africa. We then multiplied this average cost by the average student room size in South Africa.⁷

Table 3: Sensitivity of projected construction cost

Construction cost per bed								
No of Beds Req.	\$3,000	\$4,000	\$5,000	\$6,000	\$6,800	\$7,000	\$8,000	\$9,000
213,339	\$640 mil	\$853 mil	\$1.07 bil	\$1.28 bil	\$1.45 bil	\$1.49 bil	\$1.71 bil	\$1.92 bil
320,009	\$960 mil	\$1.28 bil	\$1.60 bil	\$1.92 bil	\$2.18 bil	\$2.24 bil	\$2.56 bil	\$2.88 bil
426,678	\$1.28 bil	\$1.70 bil	\$2.13 bil	\$2.56 bil	\$2.90 bil	\$2.99 bil	\$3.42 bil	\$3.84 bil
533,348	\$1.60 bil	\$2.13 bil	\$2.67 bil	\$3.20 bil	\$3.63 bil	\$3.74 bil	\$4.30 bil	\$4.80 bil
640,017	\$1.92 bil	\$2.56 bil	\$3.20 bil	\$3.84 bil	\$4.35 bil	\$4.48 bil	\$5.12 bil	\$5.76 bil
746,687	\$2.24 bil	\$2.99 bil	\$3.74 bil	\$4.48 bil	\$5.08 bil	\$5.23 bil	\$5.98 bil	\$6.72 bil
853,356	\$2.56 bil	\$3.42 bil	\$4.30 bil	\$5.12 bil	\$5.81 bil	\$5.98 bil	\$6.83 bil	\$7.68 bil

It must be noted that construction costs could differ substantially across the continent, given a myriad of variables that could affect this metric, especially over the course of five years. The \$6,800 estimate is therefore used for illustrative purposes only and we note that it is quite possible that student bed construction costs could average anywhere between the \$3,000 to \$9,000 per bed depending on the location. What the above assessment does show categorically is that a substantial funding gap will emerge over the next five years.

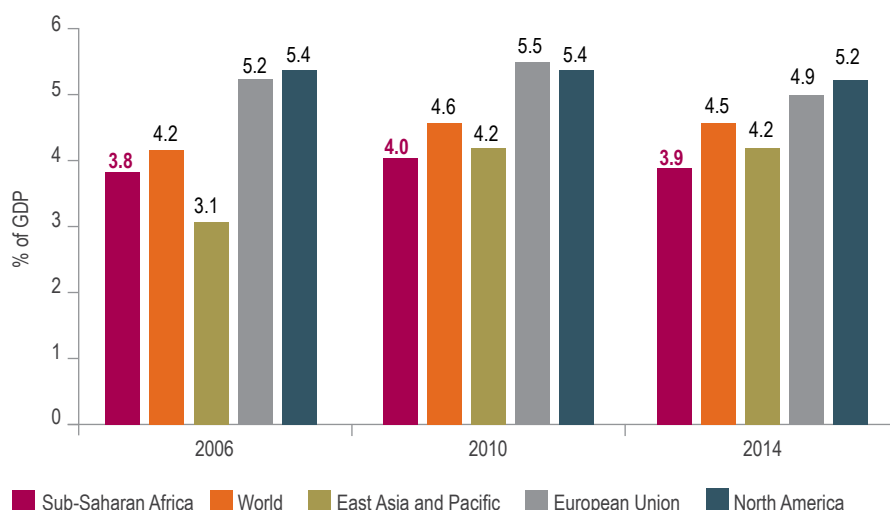
Given that a substantial funding requirement is emerging in SSA, the questions arise as to whether governments and donors have the capacity to offer such funding, and what role can private investors and developers play in this regard?

⁷ Aecom (2015): *The Blue Book*

Public funding and donor aid for higher education in Africa

Despite the pressure to grow their education budgets (which includes a student housing component), African governments have kept their education budget allocations, relative to GDP, at around 4.0% over the past decade. African countries have, on average, lagged just behind the global average and other regional averages (see Figure 5). These benchmarks indicate that there is minimal room within which to increase public expenditure on education budgets in SSA.

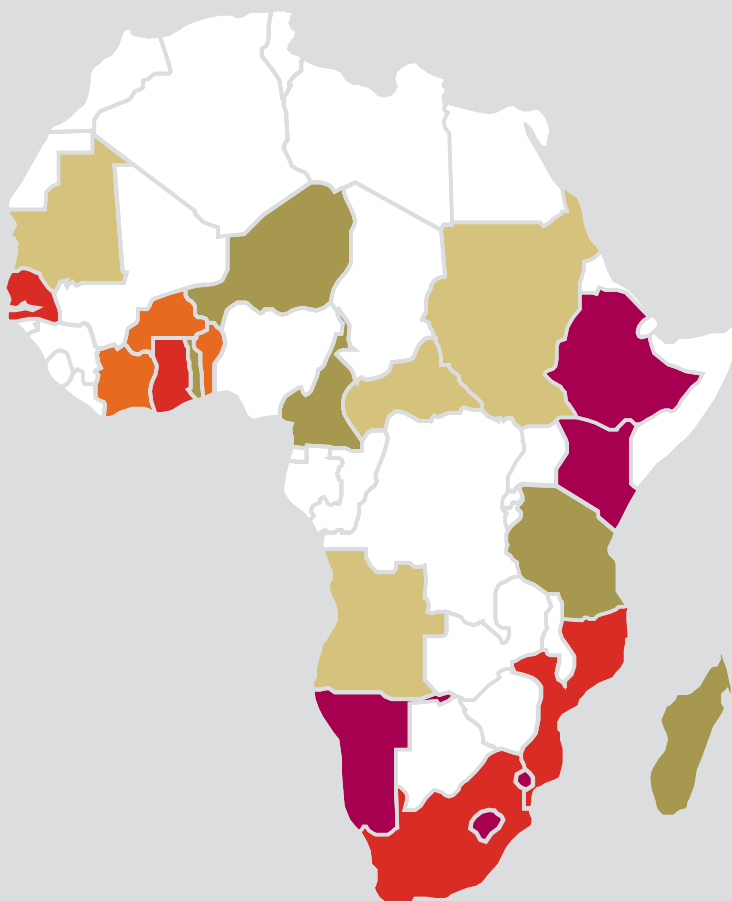
Figure 5: Government expenditure on education as a percentage of GDP



Source: World Bank Development Indicators (2016)

Figure 6: Government expenditure on education by country

Some countries in Africa are prioritising education expenditure more than others. Ethiopia, Kenya and Namibia are expending between 5.5% and 13.9% of their GDPs on education. In these countries in particular there would be very little room to increase public spending on education.



Source: World Bank Development Indicators (2016)

Furthermore, over a broad cross-section of SSA countries, only a relatively small proportion of total education budgets go towards tertiary education (Figure 7). Tertiary education budgets range between 8.0% (in Mauritius) and 30.0% (in Guinea) of total education budget allocations. This is predominantly due to the much needed emphasis that African governments are placing on improving basic education infrastructure.

Figure 7: Education budget allocations by country



Source: UNESCO Institute for Statistics (2016)

In 2013, SSA governments spent approximately \$65 billion on education of which we estimate 19.0% was spent on tertiary education. This estimate is based on a historic GDP-weighted average of tertiary education budget allocations among a number of African countries. Using this ratio, we can assume that approximately \$12 billion in public funding went towards tertiary education in SSA in 2013.

If such an amount were to be spent on developing new student accommodation over the next five years, it would significantly exceed the funding required to increase the gross enrolment ratio to 10.8% by 2020. However, this is far from what happens in practice. Typically, more than 80.0% of public tertiary education spend goes towards academic and tertiary staff salaries.⁸ Due to a lack of directly relevant data, we used the South African government's student housing budget allocation of 0.8% as a benchmark to calculate how much of the estimated \$12 billion that went to tertiary education in 2013 went to student housing.⁹

The answer is an estimate of only \$100 million. If we assume that this spending pattern remains the same over the next five years, a public funding gap of around \$3.1 billion could emerge.

A similar picture emerges when it comes to international aid for higher education in SSA. Donors, in much the same way as governments, place relatively more importance on the development of basic education, which aligns with UNESCO's vision of 'Education for All'. Only a quarter of all international aid for education in Africa, which averages \$600 million annually, goes to higher education. Furthermore, only a quarter of this allocation goes directly to universities and research centres, and of this only a fraction goes directly towards funding the construction of new purpose-built student accommodation.¹⁰

Given this constrained scenario, it is clear that the private sector needs to play a prominent role in funding the expected increase in demand for new purpose-built student housing.

⁸ The Africa-America Institute (2015): *State of Education in Africa Report*

⁹ South African Government News (2016): *Minister Allocates Funds to Student Housing, Varsity Infrastructure*

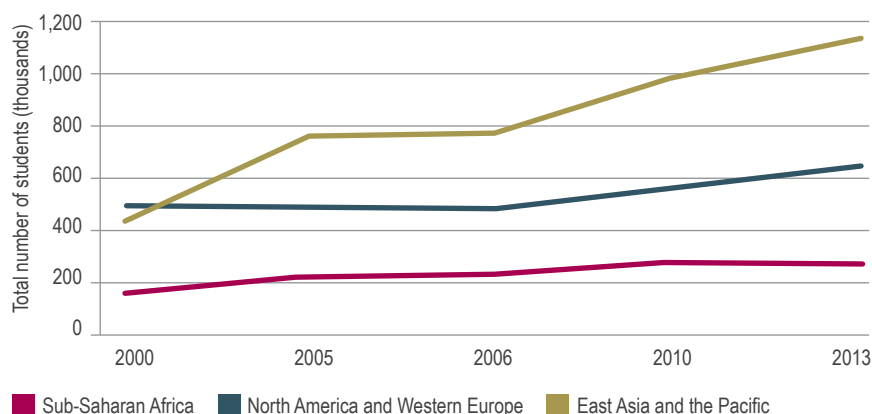
¹⁰ The World Bank (2011): *Financing Higher Education in Africa*

African student mobility

Student mobility is another important factor shaping supply of and demand for student housing. Globally, students are becoming increasingly mobile. In 2013, over 4.1 million students went abroad to study, up from 2 million in 2000. Students studying abroad represented 1.8% of global tertiary enrolments. That is, out of every 100 students that are enrolled in universities around the world, two are studying abroad.

As can be seen from Figure 8, an increasing number of East Asian students study abroad. This suggests that domestic tertiary institutions in East Asia are not keeping pace with the growing demand for higher education. SSA students studying abroad rose only marginally over this period, up from 160,000 to 265,000. South Africa attracted 25% of these outbound SSA tertiary students in 2013.

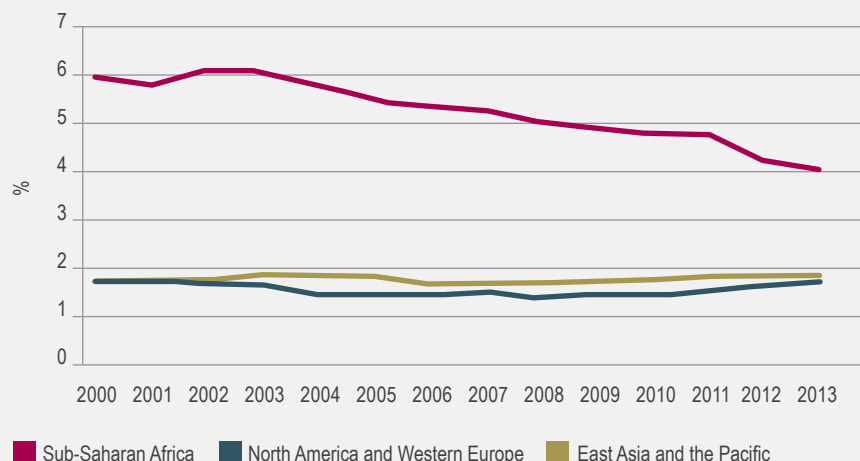
Figure 8: Total number of internationally outbound tertiary students by region



Source: UNESCO Institute of Statistics (2016)

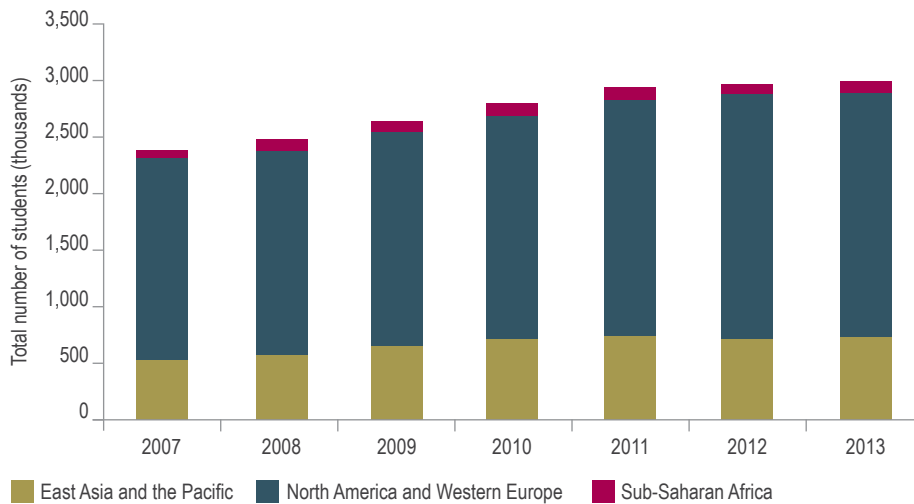
Students from SSA are among the most mobile in the world (Figure 9) but the outbound tertiary enrolment ratio has been dropping (from approximately 6.0% in 2000 to 4.0% in 2013). This could be an indication that local universities are better managing to keep pace with the growing demand for higher education by, for instance, encouraging students to study at home institutions. Relative currency weakness over this period could also be driving the relatively steep decline in this ratio.

Figure 9: Outbound enrolment ratio by region



Source: UNESCO Institute of Statistics (2016)

Student mobility is another important factor shaping supply of and demand for student housing.

Figure 10: Total internationally inbound tertiary students by region

Source: UNESCO Institute of Statistics (2016)

Despite the decreasing outbound tertiary enrolment ratio, students remain relatively mobile within SSA and are increasingly moving to regional higher education hubs which offer superior educational opportunities, share similarities in culture and language and are relatively affordable. Uganda and Ghana have emerged as regional hubs in recent times, while South Africa has remained an attractive destination, hosting on average about 25% of the mobile students within Sub-Saharan Africa.¹¹

Figure 10 shows that since 2007, approximately 100,000 international students came to study in SSA each year. This is a very low number when compared to the number of foreign students entering North America and Western Europe.

Given that internationally inbound student numbers have remained consistently low over the past decade, while numbers have grown steadily in more developed markets, there is substantial room for growth in SSA.

To improve the total number of internationally inbound tertiary students, universities must work on becoming internationally competitive. Positive macroeconomic trends affecting SSA, the number of institutions teaching in English, and the affordability of many universities and the cities within which they are located are all factors that should help universities attract more students from outside SSA.

When considering SSA student mobility trends, investors and developers should find the following encouraging:

- relatively stable internationally outbound African student numbers over the past decade
- a slowing outbound enrolment ratio across the continent
- the growth of regional tertiary education hubs
- the possibility of attracting more internationally inbound students to SSA

These trends should lead to unabated demand-side pressure for new higher education infrastructure (including purpose-built student housing), especially in the emerging regional education hubs.

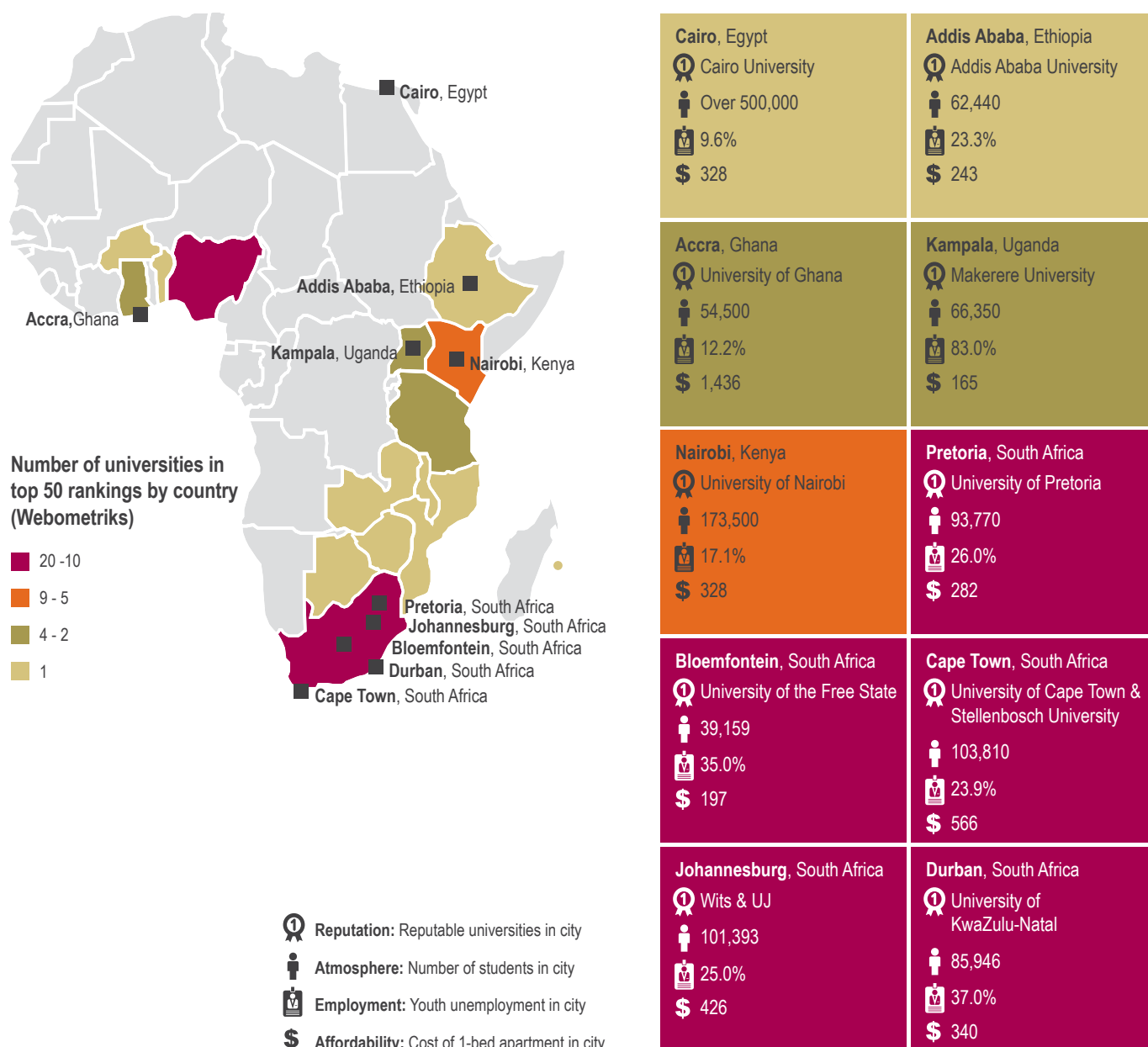
¹¹ UNESCO (2010): *Trends in Tertiary Education: Sub-Saharan Africa*

Key university cities in Africa

Cities play an important part in driving occupational demand for and supply of student housing. Universities located in desirable cities tend to attract more applications than those located in less desirable cities. From a development perspective, it is therefore important to identify the most desirable cities for students in SSA. We have compiled a list of the top 10 most desirable student cities in Africa in 2015 (Figure 11) according to the following criteria:¹²

- **Reputation:** considers the number of highly-ranked universities within or near to the city. An aggregation of the Times Higher Education, Journals Consortium and Webometrics rankings was used.
- **Atmosphere:** considers the quality of life and student community in a city. Rankings were determined by the number of students in a city as a percentage of the overall population of the city.
- **Employment prospects:** considers youth unemployment statistics, as students consider post-university employment prospects as an important desirability factor.
- **Affordability:** ranks the cities based on the cost of student accommodation (using the average cost of one-bedroom apartment in the city centre as a proxy) and the average cost of meals.

Figure 11: Top 10 most desirable university cities by size of student population and concentration of top 50 ranked universities by country



Source: Mail & Guardian Africa (2015) & 4 International Colleges & Universities Web Rankings & Reviews (2016)

¹² Mail & Guardian Africa (2015): 10 best African cities to be a student

As can be seen from Figure 11, none of the Nigerian university cities are ranked among the top 10 most desirable cities despite the fact that it has the second most universities ranked in the top 50. Therefore, to provide a more holistic representation of the SSA market, we took the top six countries which are most represented in the top 50 rankings and compared them to each other in terms of total number of tertiary-enrolled students and the total number of private and public universities (Figure 12).

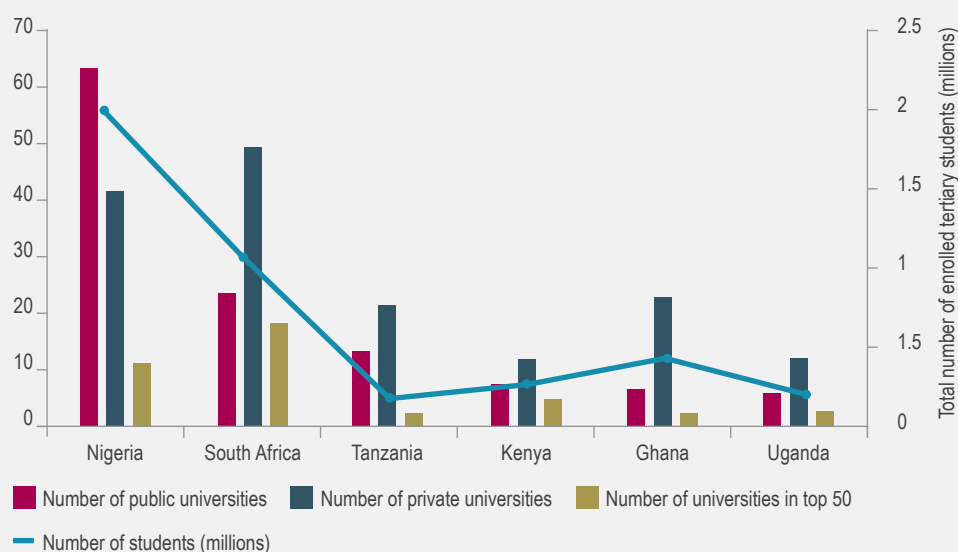
We used Webometrics, which operates the largest global higher education rankings platform, to compile our list of top 50 universities in Africa. South Africa and Nigeria form the major regional hubs, with 18 and 11 of the top 50 universities in SSA respectively (Figure 12).

From this we see that Nigeria and South Africa are by far SSA's largest tertiary student hubs in terms of size. One can also see that Nigeria is the only country that has many more public universities than private universities, highlighting its potential as a regional hub for PPP student accommodation projects.

Notwithstanding the proliferation of private universities in the other countries, the vast majority of the student populations are enrolled in private universities. In Uganda for instance, Makerere University enrolments alone make up over 60% of the national enrolment figure. On average, private universities have much lower enrolment figures than their public counterparts.

Well-structured student housing developments conducted in conjunction with or in close proximity to these top university cities and/or within the aforementioned countries should be an attractive prospect for developers and investors as such developments tap not only into the powerful urban economies that host the universities but also the strong reputations that accompany the institutions.

Figure 12: Top six countries comparison



Investment landscape

Market access

Investors wishing to enter the student housing market have a greater variety of vehicles and structures at their disposal than ever before. These vehicles have evolved in developed markets which have been catering to the increased investment appetite for this asset class since the early 1990s. Fortunately, due to rapidly evolving legal structures in SSA, many of these advanced vehicles and structures are now available in Africa.

Figure 13: Most common investment vehicles and structures to access the market

Indirect entry	Direct entry
Pension funds and syndication • Least used/evolved vehicles in Africa • Example: Old Mutual Impact Housing Fund (limited exposure to student housing)	Direct ownership • In the past, developments were predominantly let to universities • Today, developments are predominantly let directly to students • Example: Yardy Property Group (Nigersi)
REITs • Use of this vehicle predominantly limited to South Africa • Examples: Arrowhead Residential Limited & Redefine (which purchased 51% of Respublica)	Public private partnerships • Typically universities provide land by way of concession agreements to developers that “build, operate and transfer” • Example: Africa Integers (US)
	Joint ventures • Where institutional investors act as limited partners • Example: International Housing Solutions (SA)

Indirect entry through pension funds and syndicates.

These vehicles have very limited application in SSA, predominantly because the market is relatively immature and fragmented at the moment. Most student housing providers do not have substantial enough portfolios to attract large institutional investors such as pension funds, which are notoriously reluctant to make small investments or to invest in new developments. Examples of such vehicles in developed markets include the UK Student Accommodation Fund and the Campus Living Global Fund.

SSA has no listed REIT focused on student housing.

However, REITs with a general real estate focus have been entering the South African student housing market in recent times. For example, Redefine Properties, a leading South African REIT, recently purchased 51.0% of Respublica which is one of South Africa's leading student housing developers. Student housing REITs are prevalent in the US market. Examples include ACC, EDR and CCG.

The direct ownership method.

Private developers provide the vast majority of student housing in SSA. This market is still quite fragmented with many developers providing a wide variety of product. In South Africa for instance, some private developers such as South Point Property Group specialise in repurposing office stock into student housing, while some developers focus predominantly on providing new stock, which consists of a purpose-built product that typically includes 24/7 security on site (including video surveillance and card access to rooms), shared rooms with common areas, recreational services, broadband access, and sustainable building features. Examples of such providers are Respublica, CampusKey, STAG African Student Accommodation Group and the Yandy Property Group. Private developers that directly own their developments carry the largest risk, but also stand to pocket the greatest rewards, as they are in a position to earn the highest yields and rentals that the market can afford.

PPPs and joint ventures also allow for direct ownership in developments.

The partnership element of these vehicles mitigates the risk exposure of owners. These vehicles are quite desirable in the SSA market where investors and developers are exposed to relatively more systematic risk than in developed markets. PPPs are, however, a somewhat new concept in SSA. Many governments have recently promulgated comparatively standardised PPP legislation that will no doubt go a long way to facilitate such arrangements in future. The jury is still out on whether the legislation can be effectively utilised given the lack of ministerial resources and experience.

Universities tend to favour PPPs as they typically do not have large enough budgets to finance new purpose-built student housing stock or to reposition aging stock. The PPP vehicle allows them to access private funding in a transparent and low-risk manner. PPPs also permit universities to maintain their focus on education, preserve debt capacity, and benefit from the third party's experience in building facilities in an operationally cheaper and faster manner than universities are capable of doing.

Universities in Kenya and Ghana have recently concluded large PPPs agreements for the provision of student housing. Moreover, the Kenyan government is currently conducting a PPP feasibility study for a multi-million-dollar student hostels development for five public universities. The project is expected to provide more than 50,000 new student beds.¹³ Surprisingly, in this context, the South African government, which has the most advanced and effective PPP legislation in Africa, has only managed to implement one PPP student housing project for the provision of 1,100 beds.¹⁴

¹³ *University World News* (2016): Multi-million-dollar hostel project for five universities

¹⁴ *Times Live* (2016): Nzimande laments private sector apathy towards student accommodation

Performance: evidence from South Africa

Globally, student housing transaction volumes have never been higher, which demonstrates a growing investor appetite for the sector.

Institutional interest in the most active markets (i.e. the UK and the US) shows that the student housing sector is quite mature in these markets.¹⁵ In these developed markets, student housing has outperformed other commercial real estate sectors, delivering returns in the 11.0% to 15.0% range.¹⁶

Data concerning the performance of the student housing sector across SSA is lacking. We therefore focused our analysis on the South African market, predominantly because it is the most developed in terms of data gathering. The South African market categorises student housing under the broad residential category. Accordingly, residential property data was utilised to provide a broad overview of the student housing sector. Average residential property yields at the end of 2014 in South Africa were 7.5%, which was well below some other commercial property sectors (Figure 14).

In some cases, developments focused on the conversion of office space to purpose-built student accommodation have achieved yields of well above 10%, thanks in part to tax concessions and the utilisation of economies of scale. However, student housing yields in South Africa have been impacted by the increased number of deals taking place in the market, which has started to put downward pressure on yields. There is a view that despite yield compression, there is still a large appetite for funds offering investors with exposure to stable income-generating housing portfolios in South Africa, especially funds that offer exposure to rental apartments in inner cities or close to universities where landlords have been able to consistently earn yields of above 10%.¹⁷

If yields in low income residential areas are examined (in which student housing is often located), the findings point to higher average yields (9.4% in 2015). Figure 15 shows how higher yields are demanded in lower income areas to compensate land owners, among other things, for the risk associated with the so-called 'affordability cap' that is prevalent in low-income areas.¹⁸

Figure 14: Residential and commercial property yields

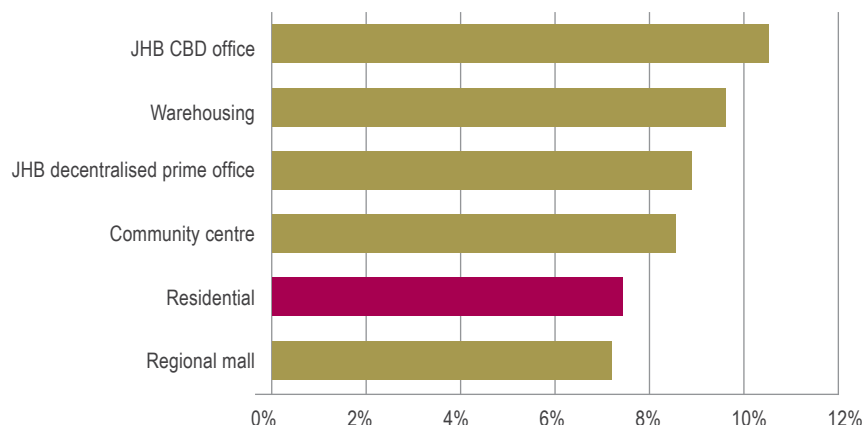
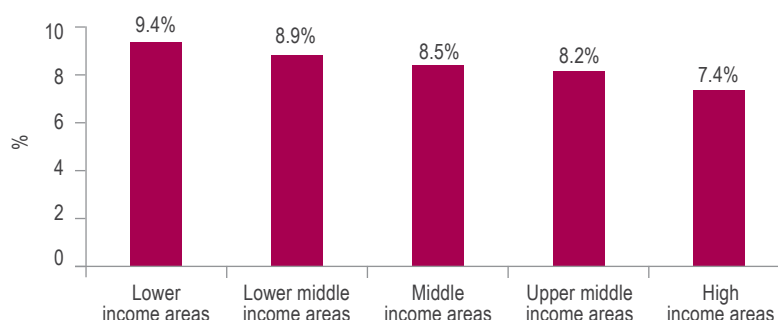


Figure 15: Residential yield by income demographic



Source: FNB (2015): TPN-FNB Residential Yields Review

Globally, student housing transaction volumes have never been higher, which demonstrates a growing investor appetite for the sector.

¹⁵ JLL (2013): *Student Housing: A New Global Asset Class*

¹⁶ Ibid

¹⁷ African Millionaire (2016): *Craig McMurray Respublica South Africa student housing developer*

¹⁸ Anderson (2015): *A place for residential REITs in the South African REIT market*



Pricing activity

Residential rental growth in South Africa as a whole has been strong, surpassing inflation comfortably over the past five years. Nevertheless, rental growth rates are at risk as residential consumers rely quite heavily on disposable income, which is in turn significantly influenced by interest rate movements and other macroeconomic factors. This is what creates the so-called 'affordability cap' which necessitates the capping of rental escalations in the residential sector, predominantly in lower income areas.¹⁹

Occupancy

Since data on occupancy rates across SSA are not readily available, South African residential data are used as a proxy. An approximate vacancy rate of 4% across the residential sector in South Africa is noted by researchers, which indicates that demand is outstripping supply.²⁰ There is little reason to expect student housing to have lower occupancy rates than the residential average given the strong demand for managed purpose-built accommodation at its relatively competitive pricing level.

Transaction and stock exchange activity

Residential stock (of which student housing forms a small part) makes up only 2.5% of the listed property sector in South Africa. In developed markets, residential stock typically makes up 15.0% of the listed property sector. The South African residential sector (including student housing) therefore has a long way to go to reach developed market benchmarks.

Nonetheless, private equity funds and listed REITs have become active in the SSA student housing market in a number of ways. SA Corporate Real Estate Fund and Octodec Investments were the first two prominent REITs to enter the student housing market in South Africa, albeit indirectly. Both these REITs purchased large residential portfolios, some of which comprised purpose-built student accommodation in the Johannesburg and Pretoria CBDs. In 2014, Redefine Properties, the second-largest REIT in South Africa, became the first REIT to buy directly into a student housing development company, when it bought a 51.0% stake in Respublica.

In 2015, Indluplace Properties became the first company that focuses primarily on residential real estate to list on the Johannesburg Stock Exchange (JSE). Student housing makes up only 14% of Indluplace's residential portfolio.²¹ Indluplace's initial public offering was substantially oversubscribed. STANLIB, the largest institutional investor in South African listed property, purchased a 8.0% stake in Indluplace.²⁰ This shows that the institutional market in South Africa has become more comfortable with residential housing (and by extension student housing) as an asset class.

More recently, CampusKey has announced that it plans to list on the JSE. If it does so successfully, CampusKey will become the only listed JSE company that focuses solely on the provision of student housing.²² These transactions show that student housing is starting to emerge as a recognised asset class in South Africa.

¹⁹ Anderson (2015): *A place for residential REITs in the South African REIT market*

²⁰ Ibid

²¹ Moneyweb (2015): *Property investors now betting on student accommodation*

²² Moneyweb (2016): *Student housing heading to the JSE*

Student housing financing

In developed markets such as the US and the UK, developers and investors have generally been able to secure both debt and equity finance for acquisitions or developments of student housing assets. These markets have typically seen strong investment activity despite weak macroeconomic conditions. Capital markets have supported this asset class, due to its strong long-term fundamentals.

In contrast to these developed markets, it has been much harder to obtain financing for African student housing projects. This is predominantly due to the reluctance of banks to finance speculative investment in risky parts of the world. Their reluctance is driven by the many other real estate financing alternatives that banks have at their disposal. Nevertheless, the large demand drivers of student housing have recently encouraged large commercial banks such as Standard Bank, ABSA, FNB and Nedbank to partner with a number of developers which focus specifically on addressing the critical student housing shortage in South Africa.²³ This should be encouraging for other local developers around the continent. In addition, development finance institutions such as the Development Bank of South Africa have played a major role in partnering with private developers and universities to provide much of the purpose-built student accommodation that is currently on the market in South Africa.

The evolution of letting options

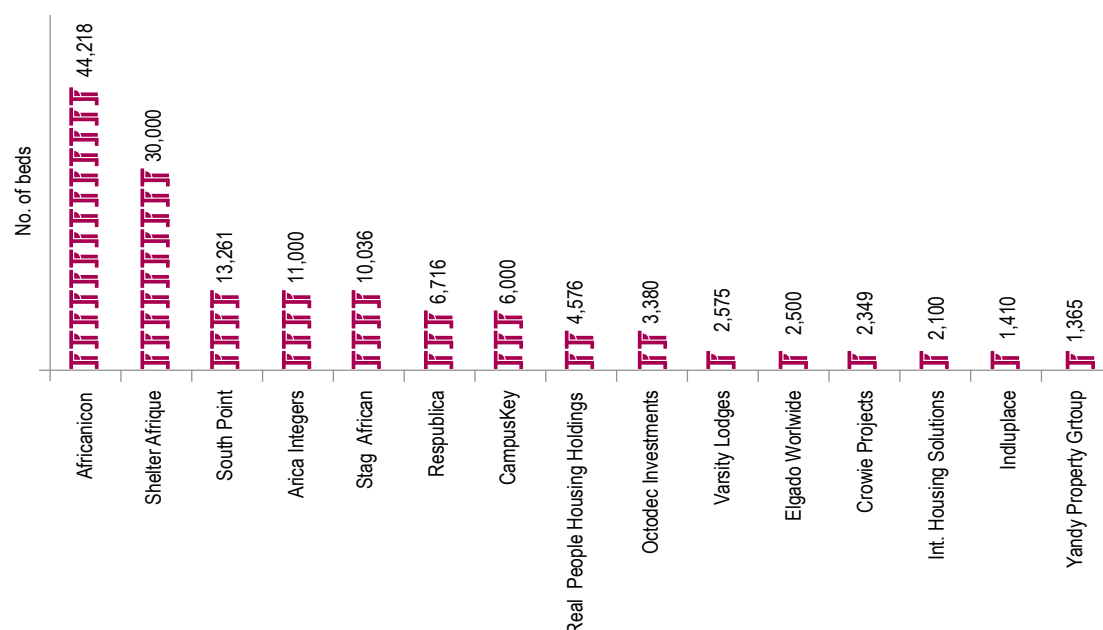
Historically, in SSA, accommodation for students was predominantly provided directly by tertiary institutions, but as operating budgets were slashed and property became increasingly expensive to acquire and maintain, many universities decided to outsource the provision and management of student accommodation to third-party companies. SSA is fortunate to be able to rely on the experience of the UK and US student markets, which have gone a long way to prove that direct let opportunities can be bankable and therefore SSA markets can avoid the unnecessary financiers' bias towards lease-to-university developments, which stunted many early UK and US direct-let developments.

Development landscape: largest student housing providers in Sub-Saharan Africa

A recent JLL survey ranked the top 15 largest private student housing providers in SSA by number of beds provided (including beds to be provided in pipeline projects that have planning approval). The two largest providers, Africanlcon and Shelter Afrique, are the only two developers with broad reach across SSA. Together they provide more beds than the remainder of the top 15 providers combined. This goes to show that economies of scale are starting to be achieved at the top end of the market. Most providers are based in South Africa. South Point is the largest provider in South Africa with 13,261 beds. Figure 16 makes it clear that the South African market is quite fragmented, with most providers offering less than 10,000 beds.²⁴

Given that demand for new purpose-built student beds could exceed 500,000 over the next five years (using conservative assumptions), the current development landscape is set to change quite noticeably over the short to medium term.

Figure 16: Top 15 private student accommodation providers in Africa



²³ Africa Property News (2015): Student Accomodation entices Private Money in Africa

²⁴ At the time of publication Africanlcon, Africa Integras, Octodec Investments, Varsity Lodges, Crowie Projects and Yandy Property Group had not yet confirmed the data used in Figure 16. These figures are therefore subject to change based on further input from these developers.

Development landscape: understanding consumers

Developers need to understand parents as they are a particularly important part of the decision-making process, especially when it comes to undergraduate students. Parents tend to prioritise property maintenance, security and supervision to nurture academic achievement.

Undergraduate and postgraduate students have different housing needs. For example, postgraduate students usually have some experience living independently and accordingly prefer to be surrounded by their peers so that they can establish networks and socialise, while undergraduates tend to place relatively less emphasis on this.

Students have much greater access to information than ever before, which means that they are comfortable to shop around to find the best housing within their budget. Postgraduate students are more exposed to self-funding and are more price sensitive, while undergraduates are likely to be more reliant on family support and tend to select accommodation based on best value for money, while still requiring security and quality.

Development landscape: microeconomics, location and design

At a city level, investors and developers need to understand market dynamics. They need to conduct systematic market-by-market research to ensure that new supply is aligned with market needs. The location of student housing is critical for its success. Successful student housing developments across the globe, sought after by investors, are more often than not located close to universities, preferably within walking distance or with easy access to public transport.

Developers should note that, due to the fact that the SSA market is far less mature than developed markets, they need to provide a far less extensive product range than is currently being offered in developed markets. They should focus on optimising economies of scale by standardising their product and production techniques to keep construction costs as low as possible. However, within these cost constraints, it must be noted that the most sought after student housing assets globally have the following characteristics:

- high quality
- thoughtful and market-specific design
- close proximity to universities
- location in underserved markets with limited competition.

With regard to design and size, developers should note that room sizes are generally far smaller in SSA than in developed markets. On average, sizes range from 9m² for single undergraduate rooms to 13m² for double rooms. Numerous reports have emerged across the continent which identify that the majority of students are not officially allocated a 'single' or 'double' room. In one case it was reported that six students inhabited a 40m² room.²⁵

Developers should come up with innovative ways to optimise space and affordability as these are far more important considerations in SSA than is the case in the developed markets.

Operating platform

Student housing is a mix between a hotel and a rental apartment. Students expect some hotel-like services, such as laundry and security services. It is a management intensive business with high maintenance costs due to a high turnover of tenants. As a rule of thumb, less than 50.0% of students renew their leases at the end of the academic year.²⁶

Leases have a short-term structure. Leases are typically structured around the academic calendar with a narrow timeframe over the year-end break, putting pressure on early marketing efforts to ensure low vacancy rates. It requires well-planned marketing and leasing strategies and active management.

Amenities are a vital selling point. Connectivity is critically important to students in SSA. This is evidenced by the surprisingly rapid growth of the SSA mobile economy. Wireless high-speed internet access has become the most important amenity for students. There is a trend towards students using online platforms to pay rent, apply for accommodation and communicate with building managers. They expect operators to provide various communication platforms such as Twitter, Facebook or applications designed for mobile phones, which in turn, gives providers of such amenities the competitive advantage in the student housing market in SSA.

Public transport and/or proximity to campus. This is a key determinant of the attractiveness of student housing developments, especially in SSA which still has a relatively large rural population and often lacks reliable public transport infrastructure. Students have grown to expect student housing developments to be serviced by reliable public transport, especially in cases where developments are not located within close proximity to a university.

Students have much greater access to information than ever before, which means that they are comfortable to shop around to find the best housing within their budget.

²⁵ Department of Higher Education and Training (2011): Review of the Provision of Student Housing at South African Universities

²⁶ Jones Lang LaSalle (2013): Student Housing: A New Global Asset Class

Future opportunities and challenges in the Sub-Saharan African student housing market

Challenges

There are a number of challenges specific to Africa, including:

Security concerns: Safety and security in student residences is a major issue for parents and students across SSA, given the prevalence of relatively high crime rates. Increased access control infrastructure and surveillance cameras which monitor lobbies, exits, elevators and laundry rooms have become essential elements of new developments.

Supporting infrastructure shortages: Student housing typically makes use of supporting infrastructure such as sports facilities, security infrastructure, laundry rooms, computer points, broadband access and recreational rooms. In South Africa alone, the Department of Higher Education estimates that the national maintenance and refurbishment backlog at public university residences amounts to R2.5 billion. It is estimated that the cost to modernise the existing stock of university residences in South Africa to ensure this stock is fit for purpose is R1.9 billion.²⁷ Given current public expenditure patterns, such infrastructure upgrades will have to be funded predominantly by the private sector.

Affordability and financing: Limited government spending makes the construction and maintenance of student accommodation unaffordable to universities. Students and parents across SSA tend to find student accommodation excessive given the relatively high levels of poverty and lack of access to reasonably priced credit. Developers also often find new developments unaffordable due to lack of easy access to funding.

A lack of foreign students: African universities do not nearly attract as many international students to their campuses as do universities in developed markets. However, Africa is increasingly opening up to inter-regional movements of students which could go some way to mitigating the impact of this challenge. Favourable macroeconomic trends should also attract more international students to SSA.

Transparent institutions and property rights: A lack of institutional transparency (on the part of, among others, banks, courts and universities) could be a major hurdle to the effective supply of student housing on the continent. For example, if legal institutions are not transparent, property rights could be difficult to enforce. If this is the case, investors and developers would be deterred from providing student housing. Encouragingly, however, there has been a recent trend across the continent towards improving transparency, especially in terms of the recent surge in the promulgation of relatively progressive PPP legislation.

Opportunities

The African student housing sector shares the following key appealing attributes with developed markets:²⁸

Steady income and solid rental growth: Typically, the sector delivers stable and secure income which grows ahead of inflation.

Resilient, less cyclical performance: Student housing is relatively decoupled from the macro economy. The sector tends to perform well in downturns, as evidenced by the recent global downturn, when student enrolments rose as students sought to remain competitive in the job market by upskilling themselves.

High occupancy: Strong demand for well-managed, purpose-built student accommodation is reflected in high occupancy rates.

Low-risk profile: The multi-tenant nature of student housing minimises default risk, or minimises the magnitude of potential default.

Opportunities specific to SSA:

Constant supply and demand imbalance: Strong demand has historically outweighed supply, causing a significant student housing infrastructure gap in markets across SSA. This trend is expected to continue, exacerbating the chronic shortage.

Strong demand drivers: The buoyant demand conditions are expected to continue with a steady rise in university enrolments.

Development: There are many on-campus development opportunities, due to the limited funding capacity of universities to start new student housing projects.

Acquisition and consolidation opportunities: In less mature markets, non-specialised residential developers often get involved in the student housing sector due to the relatively high returns that can be earned, but they often lack operational expertise. As the market matures, lucrative buy-out opportunities should arise for larger operators that can benefit from the economies of scale that come along with consolidation.

First-mover advantage: Unlike developed markets, there are many large city markets that are under-served in SSA. This presents a valuable first-mover advantage for those willing to seize upon the many opportunities that others have not yet appreciated.

²⁷ Department of Higher Education and Training (2013): Presentation to the Portfolio Committee on Higher Education and Training

²⁸ Ibid



Conclusion

The Sub-Saharan African student housing market is at an early stage of its evolution into a bona fide asset class that could over time match those in developed markets.

To become an independent asset class, student housing will require a concerted effort on the part of the private sector. This effort is required to fill what we estimate to be a substantial public sector funding gap that is set to emerge over the next five years.

When developing purpose-built student accommodation, developers, investors, and financiers should note that different regions are at different stages of their development. Given these differences, interested parties need to modify their approach to suit the particular region that they are entering.

In more mature markets, such as in Southern Africa, private players with property management experience and the balance sheet to invest could focus proportionally more on converting, upgrading and maintaining existing building stock, provided there is existing infrastructure close to universities in these markets. While in East and West Africa, outside densely populated urban areas, a greater focus needs to be placed on new developments.

There is also a significant need for PPPs across the continent due to the large amount of on-campus development opportunities that are still available.

Demand for purpose-built student housing is growing. Supply is severely lacking. Governments simply do not have the budgets to address the imbalance. Within this environment, we believe that the private sector will become progressively more involved, because student housing projects in SSA are not only viable, but are among the most attractive investments that one can make on the continent.



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